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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/577,508	01/03/2007	Rolf Meyer	EIS-1106/500593.20099	6657

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EXAMINER	
NGO, TANYA T	

ART UNIT	PAPER NUMBER
2613	

MAIL DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/577,508	MEYER ET AL.	
	Examiner	Art Unit	
	TANYA NGO	2613	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-25* is/are pending in the application.

4a) Of the above claim(s) *1-12* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 April 2006* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/3/2007*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Drawings

1. The drawings are objected to because the drawings are labeled poorly and make the drawing difficult to understand. It would be must easier to understand the drawing if the applicant would label the parts by the actual part name, such as "latch in unit, display unit, code evaluation unit, etc." rather then the seemingly random symbols, such as "EE, AE, CAE, etc.".. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 13 , and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Testani et al (herein Testani) US Patent 5,852,506 and Bomze et al (herein Bomze) US PG PUB 2003/0181201 A1.

Re claim 13, Testani discloses an infrared receiving unit comprising:

an infrared receiver for receiving infrared signals *(user headset is provided that contains receiver 52, Fig. 3 that receive both audio information on multiple channels and also data, where theses signals are modulated onto a broad band optical signal and transmitted via an IR data link. Since the signals are transmitted via IR, it is inherent the receiver is an IR receiver, Abstract)*.

Testani does not appear to explicitly disclose a transmitter search unit for carrying out an infrared transmitting frequency search within the predetermined frequency ranges stored in the memory. However, Bomze discloses a mobile communication device containing a tuner that can support the ability to monitor and search through a statically or dynamically defined frequency space in order to find and utilize the exact frequency that the data is being transferred on *(paragraph [0030])*. The examiner is interpreting the frequency space to be comprised of multiple frequency ranges. Testani and Bomze are analogous art

because they are from the same field of endeavor, wireless communication devices. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Laruila and Bomze before him or her, to modify the receiver of Laruila to include the tuner of Bomze because it is able to find and utilize the exact frequency that the data is being transfer on *(paragraph [0030])*, which advocates a best signal quality.

Testani and Bomze do not appear to explicitly disclose a memory for storing predetermined frequency ranges. However, Bomze discloses a defined frequency space that is being scanned. Since the tuner searches a frequency space that is composed of a number of frequency ranges in order to find and utilize the exact frequency the data is being transferred on, the tuner would need to know what frequency ranges have already been scanned and what frequency ranges have yet to be scanned in order to avoid repetitive searching in the same frequency ranges. In order to avoid repetitive searching and an infinite loop, which will hinder any progression towards attaining the exact frequency the data is being transferred on, the tuner must store some information as defining which frequency ranges have been search. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Testani and Bomze before him or her, to modify the tuner of Bomze to operate with a memory that stores the frequency ranges as well as information as to whether they have been searched or not because it avoids repetitive searching and infinite loops.

Re claim 17, Testani and Bomze disclose all the elements of claim 13, which claim17 is dependent upon. 17. Testani and Bomze do not explicitly disclose a code evaluation unit for

associating a detected infrared transmitter with a predetermined application. However, Testani does disclose that channels can be allocated to a predetermined application, such a different language, Col. 16, line 67 to Col. 17, line 2. The receiver switches to the channel with the language of choice selected by the user and stored, Col. 17, lines 2-14. In order to select or switch to the channel containing the language selected by the user, it would have been obvious at the time of the invention for one of ordinary skill in the art to select the channel associated with the language because each channel is transmitting a different language and the receiver knows the selected language. Selection of the appropriate channel is based on the command signal, Col. 4, lines 45-48, and the data processing section 54 decodes command information, Col. 4, lines 51-55. Therefore, the data processor evaluates or decodes the command signal, which is equivalent to the code, and is able to select the appropriate channel for the receiver by associating the selected channel with the a selected language, which is a predetermined application of the channel.

Re Claim 18, Testani and Bomze disclose all the elements of Claim 13 which Claim 18 is dependent upon. Furthermore, Laruila discloses infrared headphone/hearing aid comprising an infrared receiving unit as set forth in claim 13 *(the receiver 52 is contained a headset, Abstract)*.

Re Claim 19, Testani and Bomze disclose all the elements of Claim 13, which Claim 19 is dependent upon. Furthermore, Testani discloses a mobile terminal comprising a receiving unit as set forth in claim 13 *(Testani discloses that the headset is provided to the user, Abstract,*

and that the receivers in the headset are mobile and associated with the mobile users, Col. 1, lines 63-65).

3. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Testani and Bomze as applied to claim 13 above, and further in view of Volkel US Patent 6,134,426.

Re claim 14, Testani and Bomze disclose all the elements of claim 13, which claim 14 is dependent upon. Testani and Bomze do not appear to explicitly disclose a latch-in unit for latching in a received infrared transmitter. However, Volkel discloses a radio receiver *(Fig. 1)* where the detected transmission frequency of the station into which the receiver stage 2 is currently tuned, is stored in the memory of stage 10 *(Col. 5, lines 38-41)* which creates a database of stations which can be received by the receiver *(Col. 5, lines 44-48)*. Testani, Bomze, and Volkel are analogous art because they are from the same field of endeavor, wireless communication receivers. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Testani, Bomze and Volkel before him or her, to modify the receiver of Testani and Bomze to include the storing the detected transmission frequency of a station to a database of Volkel because the create of this database being stored in the memory is at the disposal of the user of the receiver to make a selection via the operating element *(Col. 5, lines 54-58)* allowing for stations to be reproduced*(Abstract)* without extra scan tuning.

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Testani and Bomze as applied to claim 13 above, and further in view of Reynolds US Patent 3,803,495.

Re claim 15, Testani and Bomze disclose all the elements of claim 13, which claim 15 is dependent upon. Testani and Bomze do not appear to explicitly disclose a switch unit for enabling the transmitter search. However, Reynolds discloses channel tuning equipment for a communication receiver *(Abstract)*. Reynolds further discloses that automatic tuning systems are known in the art and such systems contains mode determined by the user depressed a switch. Depressing the switch either enables or disables the scan-tuning or automatic tuning of channels *(Col. 1, lines 44-57)*. Testani, Bomze, and Reynolds are analogous art because they are from the same field of endeavor, wireless receiving elements. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Testani, Bomze and Reynolds before him or her, to modify the receiver of Testani and Bomze to include the switch of Reynolds because it allows the user to choose between automatic or manual tuning because while the system tunes from channel to channel automatically, it tends to skip over weak or low fiend strength signals making tuning of those channels difficult or uncertain.

5. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Laurila and Bomze as applied to claim 13 above, and further in view of Volkel US Patent 6,134,426.

Re claim 16, Testani and Bomze disclose all the elements of claim 13, which claim 16 is dependent upon. Testani further discloses a display unit *(the headsets are operable to*

integrate a three-dimensional LCD LENS system where the LCD is a Liquid Crystal Display that operate in video mode, Col. 4, lines 56-63). Testani does not appear to explicitly disclose that the display unit is for displaying the infrared transmitters detected by the transmitter search. However, Vokel discloses a radio receiver with a display element for displaying information about at least the desired station *(Col. 1, lines 6-22)*. The station is equivalent to the transmitters that are detected. Testani and Vokel are analogous art because they are from the same field of endeavor, wireless communication. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Testani and Vokel before him or her, to modify the receiver of Testani to include a display element for displaying information about at least the desired station of Testani because it will allow the user to be aware of the station information. Furthermore, at the time of the invention, it would have been obvious for one of ordinary skill in the art, to apply this teaching and have the display all of the received transmitters or stations in the display rather then just the desired station because what can be done to one received station can be applied to all receive stations.

6. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Testani and Bomze as applied to claim 13 above, and further in view of Nagayasu et al (herein Nagayasu) US PG PUB 2003/0118197 A1 .

Re claim 20, Testani and Bozme disclose all the elements of claim 13, which claim 20 is dependent upon. 20. However, Testani and Bomze disclose a plurality of

headphones/hearing aids including the receiving unit of claim 13 and/or a plurality of receiving units as set forth in claim 13 *(Testani disclosed that the system for communication with multiple users in a defined zone, Col 1 lines 57-59, where a mobile receiver is associated with each of the users, Col. 1 lines 63-65. Therefore, if there is a receiver associated with each user, and a multiple users, then there exists multiple receivers)*. Testani does not explicitly discloses an interpretation and conference system comprising a plurality of infrared headphones/hearing aids including the receiving unit of claim 13 and/or a plurality of receiving units as set forth in claim 13 and infrared transmitters for transmitting infrared signals at specific frequencies. However, Nagayasu discloses a short range communication headset that contains no only a receiver, but also has multiples transmitter for transmitting speeches on different frequencies, where the first and second frequency are specific frequencies *(paragraph [0013])* that is known to be usable in a conference system *(paragraph [0011])*. Testani and Nagayasu are analogous art because they are from the same field of endeavor, short range wireless communication. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Testani, Bomze and Nagayasu before him or her, to modify the headset of Testani to include the transmitter of Nagayasu because it can be useful in communication with respect to mass audience, such as conferences *(paragraph [0010])*.

Re claim 21, Testani, Bomze, and Nagayasu disclose all the elements of claim 20, which claim 21 is dependent upon. Furthermore, Testani discloses the infrared transmitter adds to the infrared signal a specific code corresponding to the specific frequency of the infrared signal *(the infrared receiver 52 receives audio on multiple channels and data. The data is*

encoded within the sync signal through pulse width modulation, where the widths of the pulses define the various commands. These various command define the channel over which the audio is being transmitted, Abstract. The data is that received by the receiver was encoded, therefore it naturally flows that it was the transmitter that encoded or added the data to the signal. Furthermore, this data contains command that define the channel, which is equivalent to the specific frequency of the audio signal, which is part of the original signal).

Re claim 22, Testani, Bomze, and Nagayasu disclose all the elements of claim 20, which claim 22 is dependent upon. Furthermore, Testani discloses a means for personalizing an infrared headphone *(a two way transmission embodiment of the headset that contains a transmitter 684, Fig. 14, which allows for ID information to be transmitted to the transmitter with additional configuration information, such as the channel on which information is to be received, Col. 18, lines 47-56)* comprising a mobile terminal comprising an infrared receiver for receiving signals, a memory for storing predetermined frequency ranges and a transmitting frequency search with the predetermined frequency ranges stored in the memory, or an infrared receiving unit comprising an infrared receiver for receiving signals, a memory for storing predetermined frequency ranges and a transmitting frequency search with the predetermined frequency ranges stored in the memory *(the headset comprises an infrared receiving unit comprising all the listed limitations as disclosed in the rejection of Claim 13 above)*. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Testani, Bomze, and Nagayasu before him or her, to further modify the receiver of Testani to include the transmitter in the headset of a Testani's two

way embodiment because it enables a security mode, allowing one or certain individuals to have unique access to a particular channel in a zone *(col. 18, lines 56-59)*, allowing for further personalization and a broader audience.

7. Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Testani, Bomze, and Nagayasu as applied to claims 20-22 above, and further in view of Mori et al (herein Mori) US Patent 6,209,127 B1.

Re claims 23-25, Testani, Bomze, and Nagayasu disclose all the elements of claim 20-22, which claims 23-25 is dependent upon. Testani, Bomze, and Nagayasu do not appear to explicitly disclose means for transmitting an operating and/or processing program to a receiving unit comprising an infrared receiver for receiving signals, a memory for storing predetermined frequency ranges and a transmitting frequency search with the predetermined frequency ranges stored in the memory. However, Mori discloses a terminal device using a wireless communication medium that is capable of remote downloading a loader program *(Col. 1, lines 9-14)*. Testani and Mori are analogous art because they are from the same field of endeavor, wireless communication devices. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Testani and Mori before him or her, to modify the receiver of Testani to include the capability of remote downloading of Mori because in order to uniformly upgrade software modules in each terminal device, it is necessary for a host station to transmit a new version of the software

modules to each terminal device via a communication medium *(Col. 1, lines 33-36)*. Since the communication medium is wireless, the downloading is remote.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TANYA NGO whose telephone number is (571) 270-7488. The examiner can normally be reached on M - F from 9 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Vanderpuye can be reached on (571) 272-3078. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ngo/
August 12, 2009

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